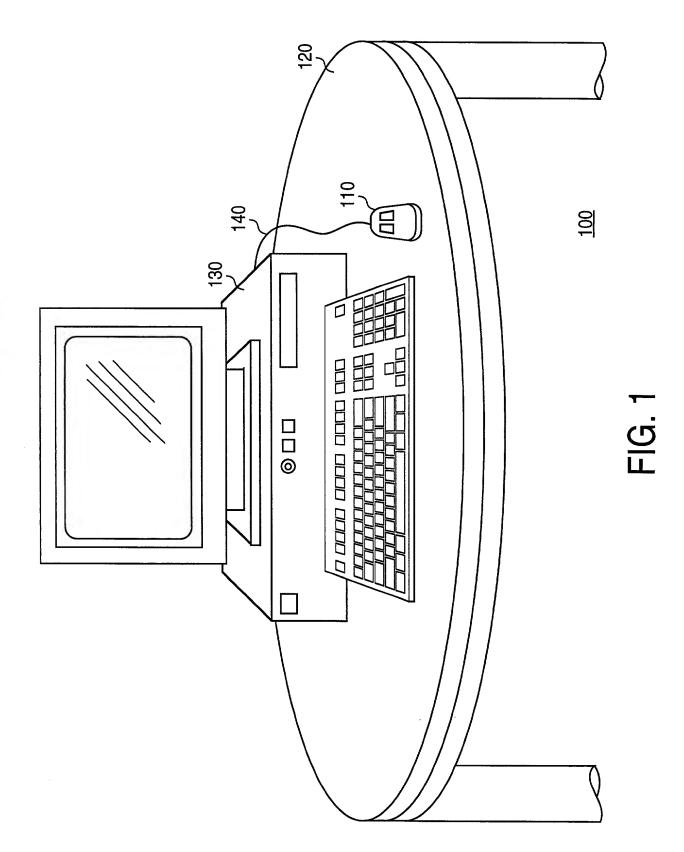
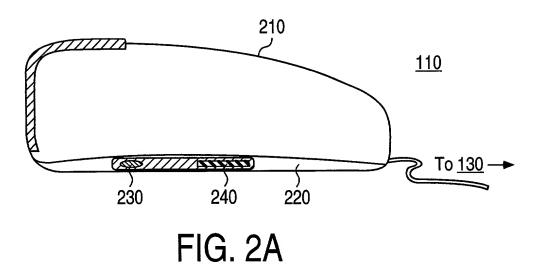
Express Mail No. EL550795673US
Title: OPTICAL DETECTION SYSTEM, DEVICE, AND
METHOD UTILIZING OPTICAL MATCHING
Inventors: Julien Plot et al.
Atty. Docket No.: 19414-06164
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Title: OPTICAL DETECTION SYSTEM, DEVICE, AND METHOD UTILIZING OPTICAL MATCHING Inventors: Julien Piot et al.

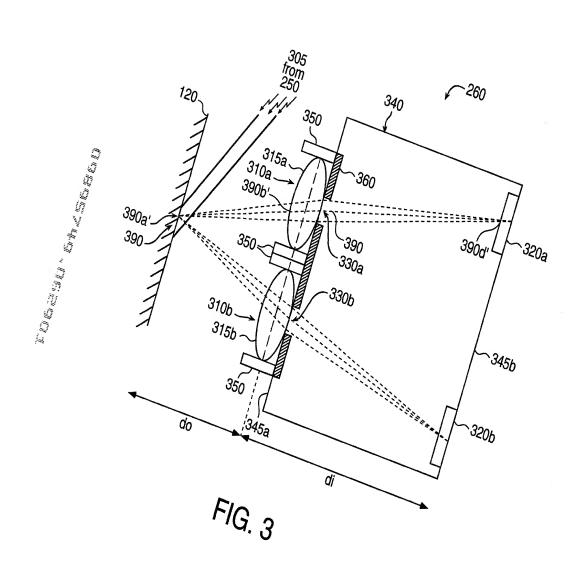
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210 <u>110</u> 250 260 To <u>130</u> 240 **220** 230

FIG. 2B



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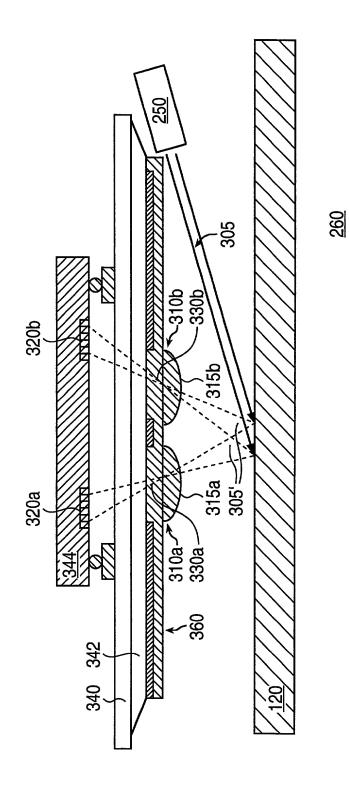


FIG. 4A

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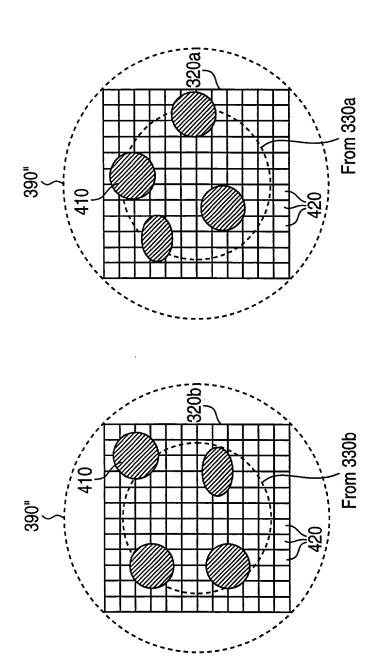


FIG. 4B

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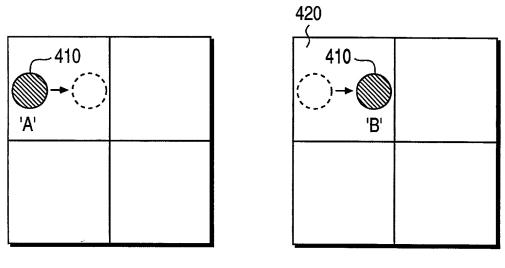


FIG. 4C

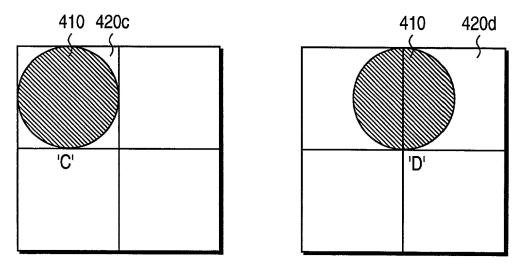
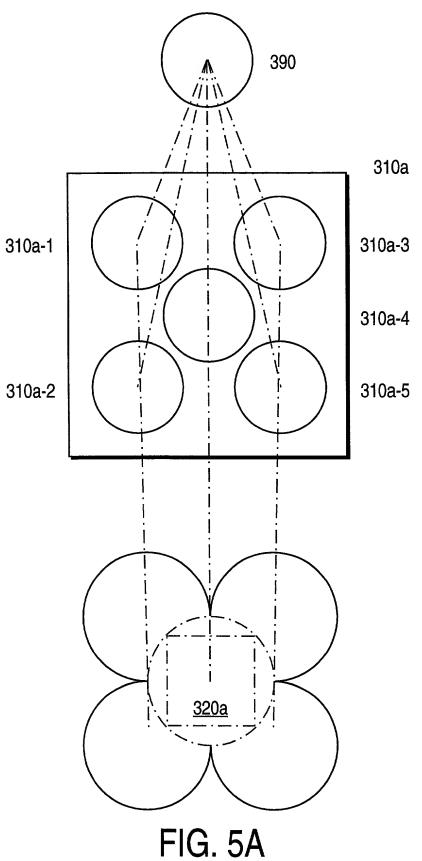


FIG. 4D

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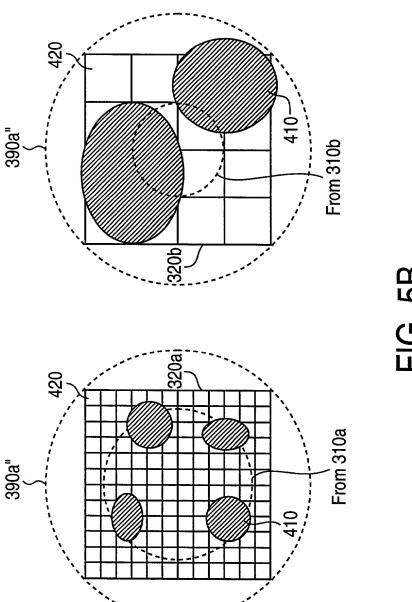


FIG. 5B

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METHOD UTILIZING OPTICAL MATCHING
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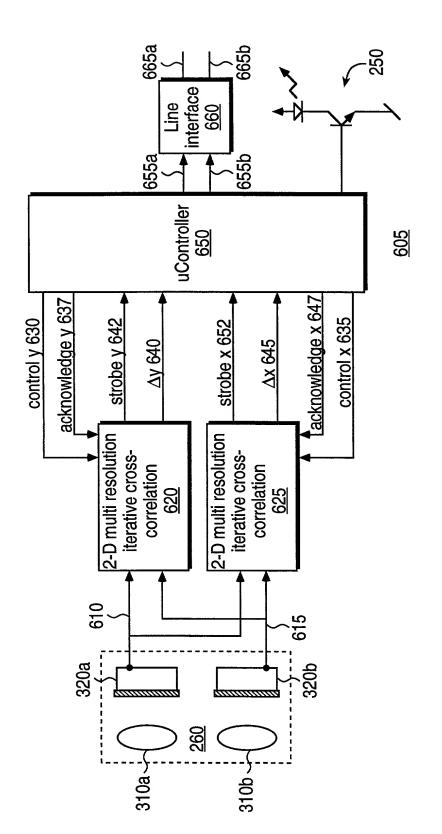


FIG. 6

METHOD UTILIZING OPTICAL MATCHING Inventors: Julien Piot et al. Atty. Docket No.: 19414-06164 Sheet 10 of 17 Start <u>705</u> Produce Collimated Light Beam <u>710</u> Reflect Scattered Light Off of Surface **715** Receive Scattered Light at **Optical Sensing Assembly** 720 Pass Scattered Light Through Artificially Limited Aperture That is Optically Matched With Photosensitive Array <u>725</u> Generate Unambiguous Image Data Signal 730 Store Pixel Values <u>735</u> **Detect Movement Through Cross-Correlation Evaluation** 740 Result 750

Express Mail No. EL550795673US

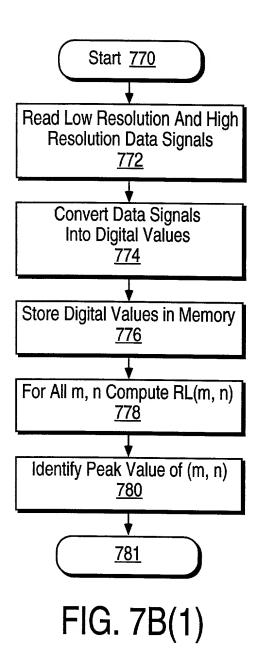
Title: OPTICAL DETECTION SYSTEM, DEVICE, AND

FIG. 7A

CPTICAL DETECTION SYSTEM, DEVICE, AND METHOD UTILIZING OPTICAL MATCHING

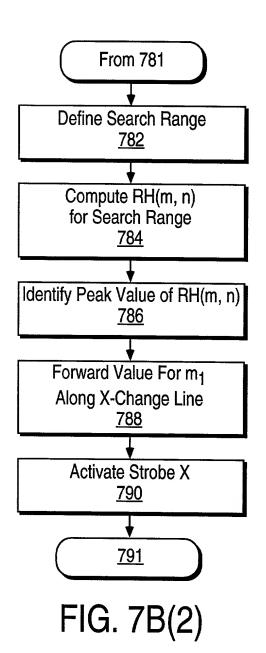
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Title: Optical Detection System, Device, and Method Utilizing Optical Matching

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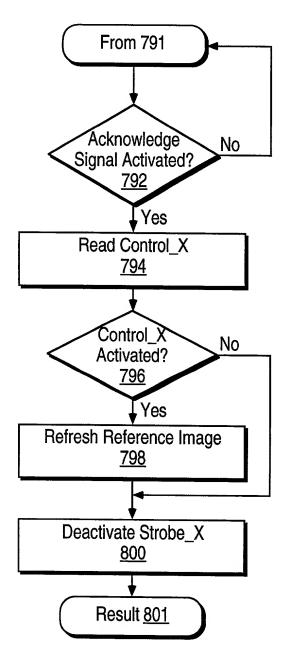
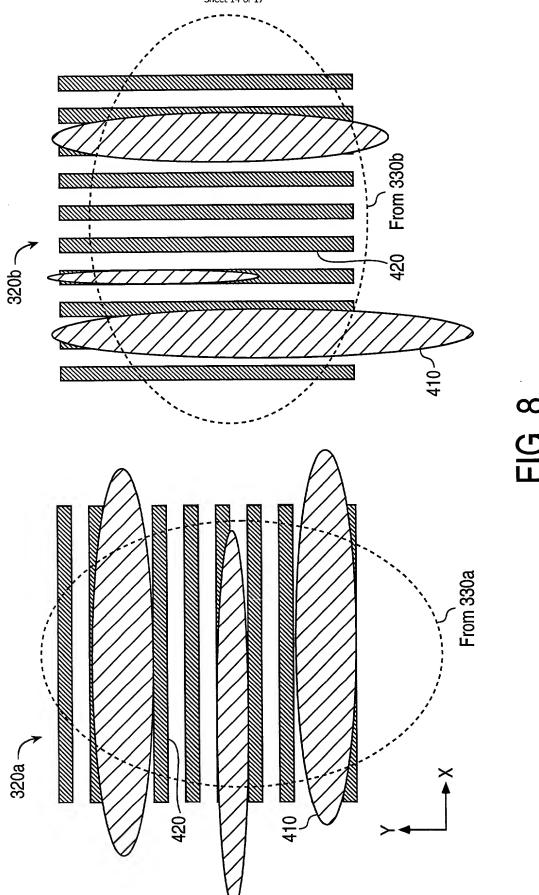


FIG. 7B(3)

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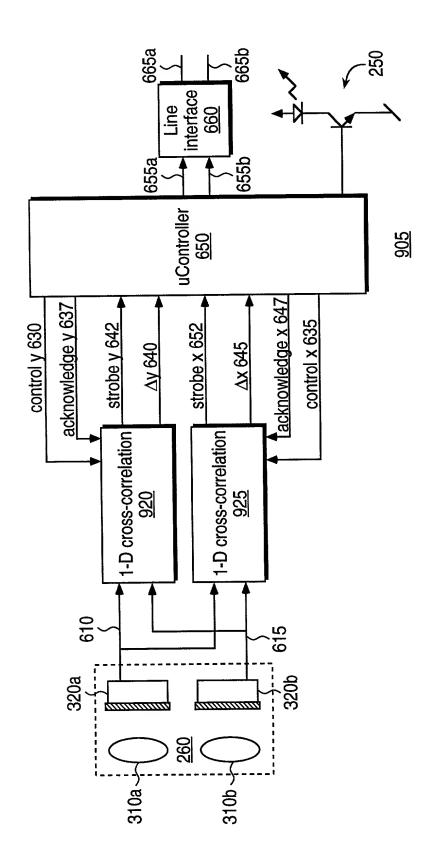
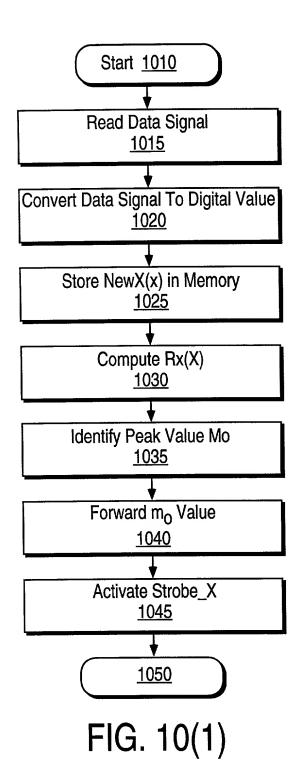


FIG. 9

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 OPTICAL DETECTION SYSTEM, DEVICE, AND METHOD UTILIZING OPTICAL MATCHING

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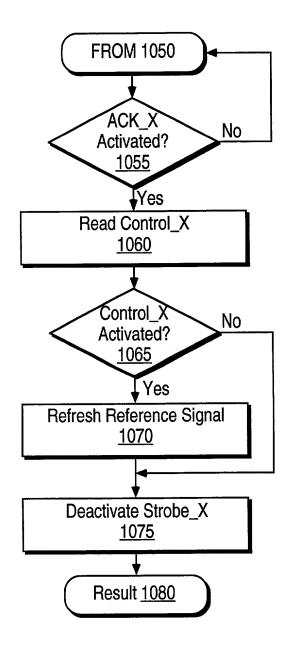


FIG. 10(2)